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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,278	02/22/2001	Michal Linial	P-1476-US	9776

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EXAMINER

ALLEN, MARIANNE P

ART UNIT	PAPER NUMBER
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1647

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,278

Applicant(s)

LINIAL ET AL.

Examiner

Marianne P. Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-18, 21, 23, 27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-18, 21, 23, 27, 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 19-20, and 22 have been cancelled. Claim 29 has been newly introduced.

Applicant's arguments filed 11/28/05 have been fully considered but they are not persuasive.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Abstract

Submission of the abstract on its own sheet of paper is noted.

Claim Objections

Claim 2 is objected to because of the following informalities: The amendment filed 11/28/05 introduces a period (“.”) into the second line of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 2-18, 21, 23, 27, and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Claims 2-8, 10, 12-16, 21, and 27 have been amended and claim 29 has been newly introduced.

Claim 2, lines 1-2, has been amended to recite “wherein the molecules are nucleic acids or amino acids.”

Claim 2, steps (iv) and (v) have been amended to recite “neighbors in the protein space graph.”

Applicant points to basis for these claim limitations at pages 10, line 24, and page 11, second paragraph. However, these limitations are not seen in these portions of the specification. These pages discuss a particular analytical procedure and the claims are not limited to this method (e.g. producing a graph where the vertices are protein sequences, homologies among proteins deduced by transitivity, and so forth). In particular, a method where the molecules are nucleic acids (as set forth in line 2) using a protein space graph (as set forth in steps (iv) and (v)) is not seen. It is noted that claims 15-17 are directed to methods where the molecules are polynucleotides.

The amendment changes the preamble of claim 2 from molecules having similar biological function to molecules having similar sequence. The amendment changes the concluding step from “classifying molecules having similar biologic function” to “determining the position of a selected molecule in the position of the hierarchical organization of step a.” It is unclear what the basis for these changes is. Furthermore, it does not appear that determining a position of a molecule results in the preamble goal of classifying a molecule. The claim as written is directed to a conceptually different method than that originally claimed and is considered to embrace new matter. Claim 27 has been similarly amended and is considered to embrace new matter for the same reasons.

Claim 6 now reads “each time raising the threshold of steps iv and v.” No basis for this change is apparent.

Claim 8 inserts “repeating steps iv and v.” No basis for this change is apparent.

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Claim 10 inserts “to the expectation value.” No basis for this change is apparent.

Claim 13 inserts “using said SEG program.” No basis for this change is apparent.

Claim 27 has been amended to require a processor programmed for automatically classifying molecules having similar hierarchical position. No basis for this change is apparent.

Basis for new claim 29 is stated to be on page 16, lines 11-14, and Figures 4, 5, and 7. These portions of the specification do not appear to disclose the method of claim 2 having the additional step set forth in claim 29. Note that claim 2 as presently written no longer has any limitations to biological function. Only sequence information is required to be present in the database.

Claims 2-18, 21, 23, 27, and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is directed to an automatic method of classifying nucleic acid or amino acid molecules having similar sequence. Claim 27 is directed to system for automatically classifying molecules having similar hierarchical position.

However, the claims are confusing in that the steps do not achieve the result of the preamble goal of the method. It does not appear that determining a position of a molecule results in the preamble goal of classifying a molecule.

Claim 2, step (vi) has been amended to recite “based on the threshold.” It is unclear whether this is referring to the threshold of step (iii) or some other unspecified threshold.

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The steps may identify molecules that are highly structurally related but none of the steps of the method speak to biological function. While similar structures may have similar function, the claims possess no limitations making that connection.

Claim 7 remains grammatically unclear as to what is intended. It appears that at least one word is missing from the claims.

Claim 8, 10, 12, and 13 recites that the method “further comprises.” As set forth in the prior Office action, the claims do not make clear when or where within the method these steps are added.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 571-272-0712.

The examiner can normally be reached on Monday-Thursday, 5:30 am - 1:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571-272-0961. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marianne P. Allen

Marianne P. Allen
Primary Examiner
Art Unit 1647

3/15/06

mpa